

REMARKS

Claims 16 – 22, 27 and 28 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

SPECIFICATION

The title of the invention stands objected to as being non-descriptive. Although Applicant does not necessarily agree, Applicant amends the title herein. Therefore, reconsideration and withdrawal of this objection is respectfully requested.

CLAIM OBJECTIONS

Claims 23 and 24 stand objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Although Applicant does not necessarily agree, Applicant cancels Claims 23 and 24 herein. Accordingly, these objections should be moot.

DOUBLE PATENTING

Claims 16, 17, 20, and 21 stand provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 3 of copending Application No. 10/850,837 (see US 2005/0018125). Although Applicant does not necessarily agree, Applicant elects to submit a terminal disclaimer herewith to overcome the provisional obviousness-type double patenting rejection. Accordingly, this rejection should be moot.

REJECTION UNDER 35 U.S.C. § 102

Claims 20, 23, and 24 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Hsieh et al. (U.S. Pat. No. 6,867,840). This rejection is respectfully traversed.

Notwithstanding, Applicant amends claim 20. As amended, claim 20 calls for a liquid crystal arrangement device including "a controller that controls an interval between the liquid crystal discharged from the nozzles based on a diameter of the liquid droplets after impact of the liquid droplets on the substrate, which was measured in advance" as one of the technical features thereof.

With this feature, the liquid crystal arrangement device according to currently amended claim 20 enables achieving an object of "forming a uniform coated film on a substrate while reducing drop marks" (see page 2, lines 9 and 10, in the original specification of the present application).

On the other hand, none of citations cited in the Office Action (i.e., U.S. Pat. No. 6,867,840 (hereinafter "Hsieh et al."), Japanese Unexamined Patent Application, First Publication No. H09-138410 (hereinafter "Yamamoto et al."), and U.S. Pat. No. 6,667,795 (hereinafter "Shigemura")) discloses or suggests the above-mentioned feature.

Accordingly, the liquid crystal arrangement device according to currently amended claim 20 of the present invention should be allowable since it includes the above-mentioned feature which is not disclosed nor suggested in the citations and results in achieving the above-mentioned object.

In addition, claims 23 and 24 are cancelled. Therefore, the novelty rejections thereto should be withdrawn.

REJECTION UNDER 35 U.S.C. § 103

Claims 16-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hsieh et al. in view of Yamamoto et al. This rejection is respectfully traversed.

A liquid crystal arrangement method according to currently amended claim 16 includes "determining *an arrangement pitch of the liquid droplets to be arranged in line* on the substrate based on a diameter of the liquid droplets after impact of the liquid droplets on the substrate, which was measured in advance; and discharging the liquid droplets from the nozzles while maintaining the arrangement pitch" as one of the technical features thereof.

With this feature, the liquid crystal arrangement method according to currently amended claim 16 enables achieving an object of "forming a uniform coated film on a substrate while reducing drop marks" (see page 2, lines 9 and 10, in the original specification of the present application).

On the other hand, Yamamoto et al. discloses, as shown in FIG. 1 (and refer to claim 1 of Yamamoto), forming an orientation film using an area-type ink jet nozzle which has a plurality of lines of liquid droplet discharging nozzles. In each line, the liquid droplet discharging nozzles are arranged so as to have a predetermined pitch therebetween. While discharging liquid droplet from the liquid droplet discharging nozzles onto a substrate, each gap formed by the predetermined pitch is compensated by liquid droplet discharged from the other liquid discharging nozzles in the next line.

Accordingly, the apparatus and the method disclosed in Yamamoto et al. completely differ from those of the present invention.

Furthermore, none of Yamamoto et al., Hsieh et al., and Shigemura discloses nor suggests "determining an arrangement pitch of the liquid droplets to be arranged in line on the substrate based on a diameter of the liquid droplets after impact of the liquid droplets on the substrate, which was measured in advance".

Accordingly, the liquid crystal arrangement method according to currently amended claim 16 is novel and non-obvious in view of Yamamoto et al., Hsieh et al., and Shigemura, and therefore should be allowable.

In addition, claims 17 to 19 should also be allowable due to their dependency on allowable claim 16.

Next, a liquid crystal arrangement device according to currently amended claim 20 includes "a controller that controls an interval between the liquid crystal discharged from the nozzles based on a diameter of the liquid droplets after impact of the liquid droplets on the substrate, which was measured in advance" as one of the technical features thereof.

Of course, none of Yamamoto et al., Hsieh et al., and Shigemura discloses nor suggests this technical feature. Therefore, the currently amended claim 20 should be allowable.

In addition, claims 21 and 22 should also be allowable due to their dependency on allowable claim 20.

Since claims 23 and 24 are currently cancelled, the obviousness rejections thereto should be withdrawn.

Claim 26 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hsieh et al. in view of Yamamoto et al. in view of Shigemura. This rejection is respectfully traversed.

Since claim 26 is currently cancelled, the obviousness rejection thereto should be withdrawn.

ELECTION/RESTRICTION

Applicant acknowledges the withdrawal of claims 1-15 and 25. Applicant cancels Claims 1-15 and 25.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested.

If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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